

RE: P240444-01 - Roof - HR Lot 140

Site Information:

Project Customer: Clayton Properties Project Name: Wildflower - Farmhouse 3C

Lot/Block: 140

Subdivision: Hawthorne Ridge

Model:

Address: 3117 SW Arboridge Dr

City: Lee's Summit

State: MO

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16 Wind Speed: 115 mph

Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Mean Roof Height (feet): 35

Exposure Category: C

No.	Seal#	Truss Name	Date
1	I65297036	A01	5/3/24
2	I65297037	A02	5/3/24
3	I65297038	A03	5/3/24
4	I65297039	A04	5/3/24
5	I65297040	B01	5/3/24
6	I65297041	C01	5/3/24
7	I65297042	C02	5/3/24
8	I65297043	C03	5/3/24
9	I65297044	C04	5/3/24
10	I65297045	C05	5/3/24
11	I65297046	C06	5/3/24
12	I65297047	C07	5/3/24
13	I65297048	C08	5/3/24
14	I65297049	C09	5/3/24
15	I65297050	CJ01	5/3/24
16	I65297051	J01	5/3/24
17	I65297052	J02	5/3/24
18	I65297053	LG01	5/3/24
19	I65297054	PB1	5/3/24
20	I65297055	PB2	5/3/24
21	I65297056	V01	5/3/24
22	I65297057	V02	5/3/24
23	I65297058	V03	5/3/24
24	I65297059	V04	5/3/24
25	I65297060	V05	5/3/24

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2025.

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



May 3, 2024

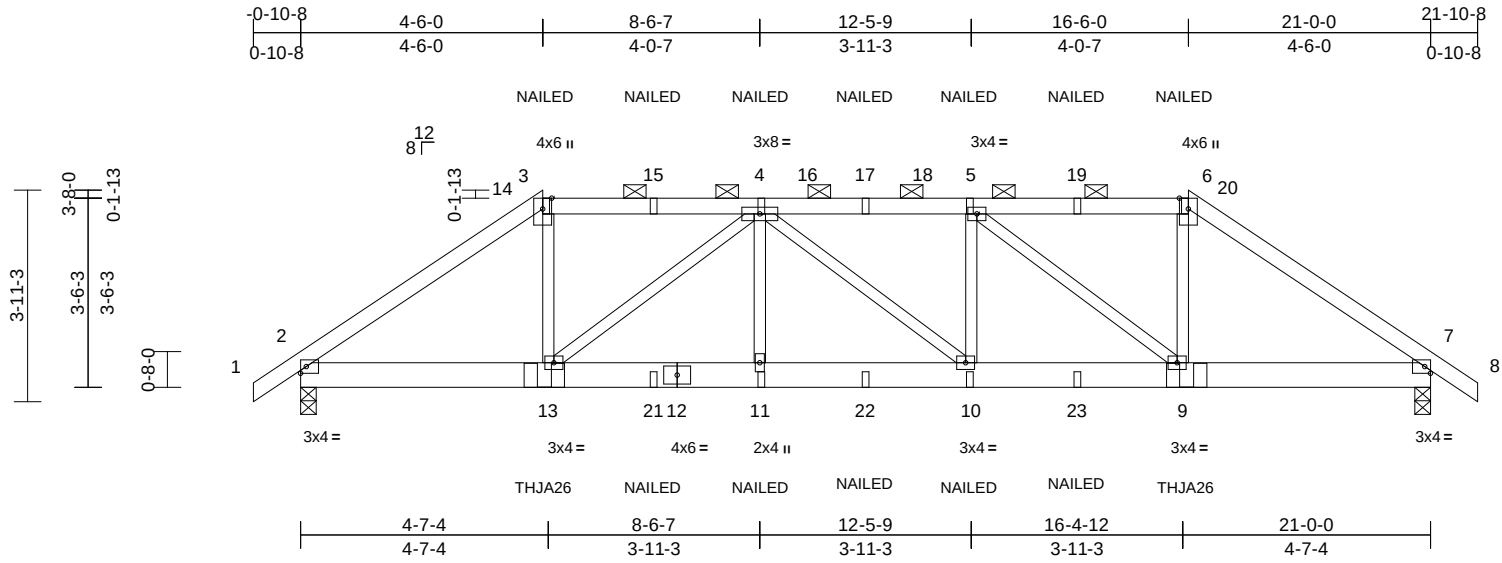
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	165297036
P240444-01	A01	Hip Girder	1	2	Job Reference (optional)	

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Scale = 1:42.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.05	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 191 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 7=0-3-8
Max Horiz 2=98 (LC 11)
Max Uplift 2=-536 (LC 12), 7=-536 (LC 13)
Max Grav 2=1596 (LC 1), 7=1596 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-2349/858, 3-4=-1852/750, 4-5=-2598/1040, 5-6=-1852/743, 6-7=-2350/863, 7-8=0/21
BOT CHORD 2-13=-704/1817, 11-13=-1010/2603, 10-11=-1010/2603, 9-10=-990/2598, 7-9=-631/1818
WEBS 3-13=-296/980, 4-13=-1009/452, 4-11=0/251, 4-10=-28/27, 5-10=0/249, 5-9=-1001/446, 6-9=-296/980

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-6-0, Exterior(2R) 4-6-0 to 11-6-14, Interior (1) 11-6-14 to 16-6-0, Exterior(2E) 16-6-0 to 21-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 536 lb uplift at joint 2 and 536 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 4-6-6 from the left end to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 16-5-10 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-6=-70, 6-8=-70, 2-7=-20
Concentrated Loads (lb)
Vert: 3=-79 (F), 6=-79 (F), 13=-254 (F), 4=-79 (F), 11=-24 (F), 10=-24 (F), 5=-79 (F), 9=-254 (F), 15=-79 (F), 17=-79 (F), 19=-79 (F), 21=-24 (F), 22=-24 (F), 23=-24 (F)



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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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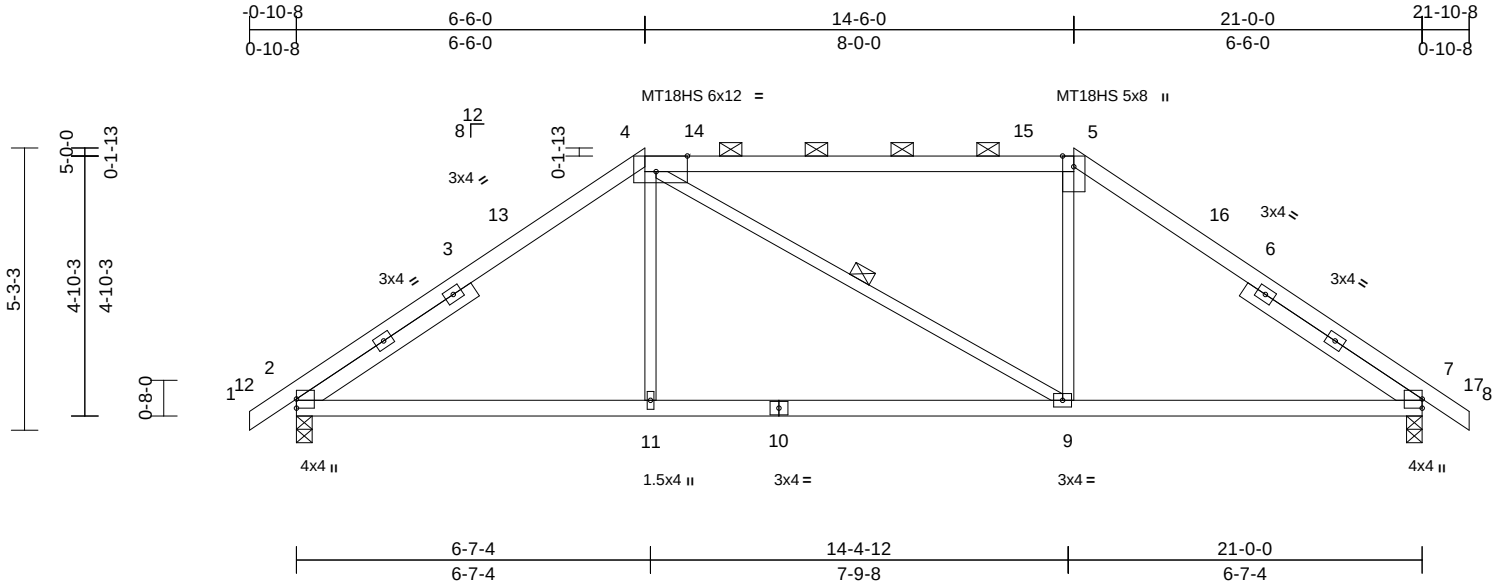
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	I65297037
P240444-01	A02	Hip	1	1	Job Reference (optional)	

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Scale = 1:43

Plate Offsets (X, Y): [4:0-7-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.07	9-11	>999	240	MT18HS 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.15	9-11	>999	180	MT20 244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.03	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 96 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-5:2x4 SP 1650F 1.5E
 BOT CHORD 2x4 SP No.2
 WEBS 2x3 SPF No.2
 SLIDER Left 2x4 SP No.2 -- 3-11-1, Right 2x4 SP No.2 -- 3-11-1

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 4-9

REACTIONS (size) 2=0-3-8, 7=0-3-8
 Max Horiz 2=-136 (LC 10)
 Max Uplift 2=-125 (LC 12), 7=-125 (LC 13)
 Max Grav 2=1006 (LC 1), 7=1006 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/16, 2-4=-1287/212, 4-5=-975/245, 5-7=-1287/211, 7-8=0/16
 BOT CHORD 2-11=-133/971, 9-11=-131/975, 7-9=-57/971
 WEBS 4-11=0/307, 4-9=-117/118, 5-9=0/307

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-6-0, Exterior(2R) 6-6-0 to 13-6-14, Interior (1) 13-6-14 to 14-6-0, Exterior(2R) 14-6-0 to 21-6-14, Interior (1) 21-6-14 to 21-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 2 and 125 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



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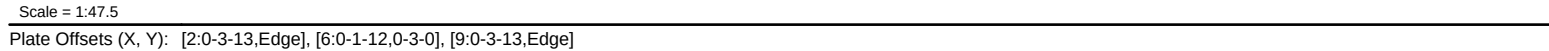
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LUMBER			
TOP CHORD	2x4 SP No.2		
BOT CHORD	2x4 SP No.2		
WEBS	2x3 SPF No.2		
SLIDER	Left 2x4 SP No.2 -- 2-6-14, Right 2x4 SP No.2 -- 2-6-14		
BRACING			
TOP CHORD	Structural wood sheathing directly applied or 5-3-3 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.		
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		
REACTIONS			
(size)	2=0-3-8, 9=0-3-8		
Max Horiz	2=173 (LC 11)		
Max Uplift	2=-143 (LC 12), 9=-143 (LC 13)		
Max Grav	2=1006 (LC 1), 9=1006 (LC 1)		
FORCES			
(lb) - Maximum Compression/Maximum Tension			
TOP CHORD	1-2=0/16, 2-4=-1295/252, 4-5=-1064/218, 5-6=-826/225, 6-7=-1064/214, 7-9=-1294/229, 9-10=0/16		
BOT CHORD	2-13=-185/991, 11-13=-4/826, 9-11=-112/991		
WEBS	4-13=-254/200, 5-13=-24/287, 6-13=-108/110, 6-11=-42/287, 7-11=-255/200		

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
 Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
 exterior zone and C-C Exterior(2E) -0-10-8 to 4-2-11,
 Interior (1) 4-2-11 to 8-6-0, Exterior(2E) 8-6-0 to 12-6-0,
 Exterior(2R) 12-6-0 to 19-6-14, Interior (1) 19-6-14 to
 21-10-8 zone; cantilever left and right exposed ; end
 vertical left and right exposed; C-C for members and
 forces & MWFRS for reactions shown; Lumber
 DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.



May 3, 2024

 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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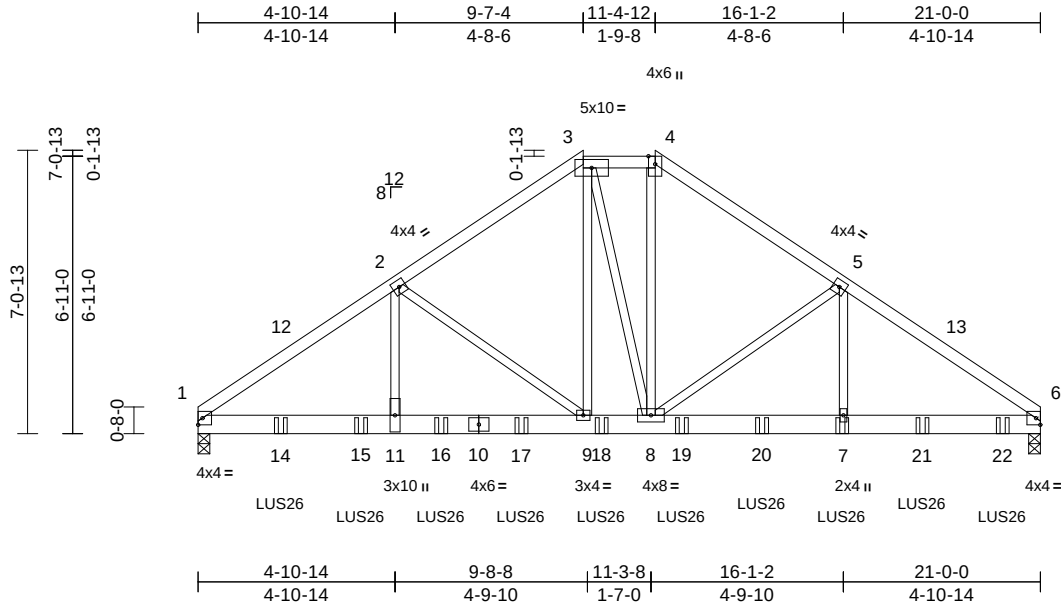
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	A04	Hip Girder	1	3	Job Reference (optional)	I65297039

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.07	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.12	9-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 314 lb	FT = 20%

LUMBER		
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x6 SPF No.2	
WEBS	2x3 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS		(size) 1=0-3-8, 6=0-3-8
	Max Horiz	1=-184 (LC 8)
	Max Uplift	1=-1069 (LC 12), 6=-1208 (LC 13)
	Max Grav	1=4948 (LC 19), 6=5373 (LC 20)
FORCES		(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-7206/1600, 2-3=-5003/1199, 3-4=-4222/1060, 4-5=-5067/1225, 5-6=-7179/1621	
BOT CHORD	1-11=-1312/5869, 9-11=-1312/5869, 8-9=-865/4221, 7-8=-1240/5709, 6-7=-1240/5709	
WEBS	2-11=-464/2440, 2-9=-2092/566, 3-9=-555/2350, 3-8=-144/336, 4-8=-610/2576, 5-8=-1993/579, 5-7=-482/2335	

- NOTES**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 4-10-14, Interior (1) 4-10-14 to 9-7-4, Exterior(2E) 9-7-4 to 11-4-12, Exterior(2R) 11-4-12 to 18-5-10, Interior (1) 18-5-10 to 20-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1069 lb uplift at joint 1 and 1208 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 20-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 1-6=-20

Concentrated Loads (lb)
Vert: 7=-767 (B), 14=-805 (B), 15=-805 (B), 16=-767 (B), 17=-767 (B), 18=-767 (B), 19=-767 (B), 20=-767 (B), 21=-767 (B), 22=-769 (B)



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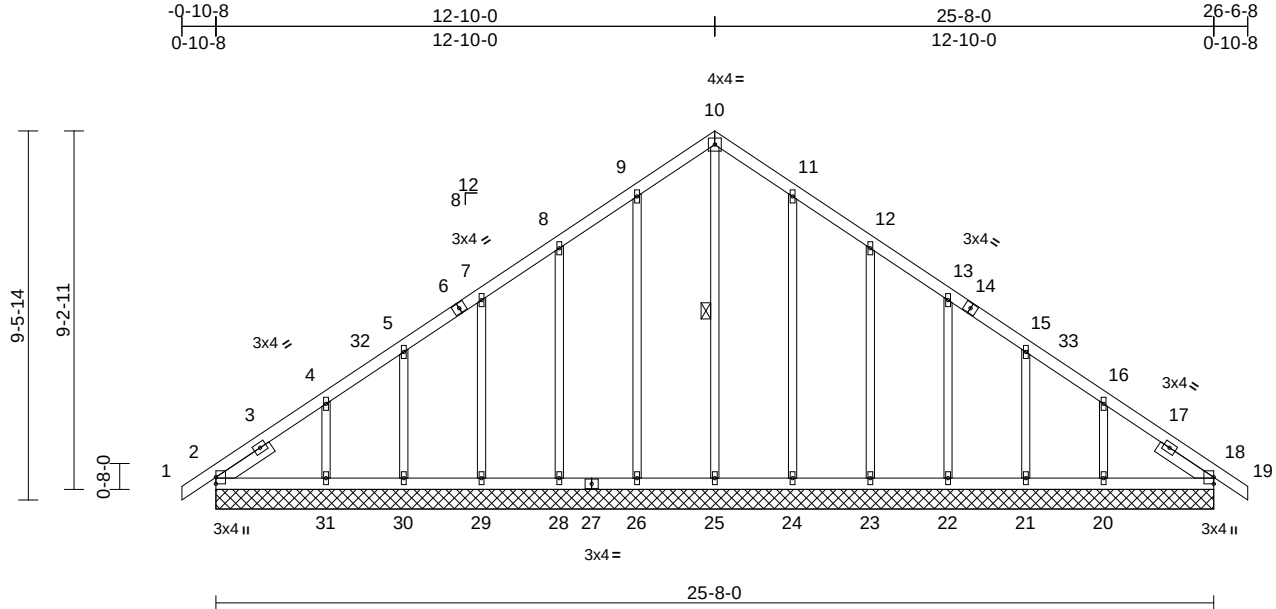
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	B01	Common Supported Gable	1	1	Job Reference (optional)	I65297040

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Scale = 1:59.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 138 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-13, Right 2x4 SP No.2 -- 1-7-13

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 10-25
REACTIONS (size) 2=25-8-0, 18=25-8-0, 20=25-8-0, 21=25-8-0, 22=25-8-0, 23=25-8-0, 24=25-8-0, 25=25-8-0, 26=25-8-0, 28=25-8-0, 29=25-8-0, 30=25-8-0, 31=25-8-0

Max Horiz 2=255 (LC 11)
Max Uplift 2=-60 (LC 8), 18=-4 (LC 9), 20=-137 (LC 13), 21=-62 (LC 13), 22=-81 (LC 13), 23=-83 (LC 13), 24=-69 (LC 13), 26=-72 (LC 12), 28=-82 (LC 12), 29=-81 (LC 12), 30=-59 (LC 12), 31=-146 (LC 12)
Max Grav 2=239 (LC 20), 18=211 (LC 1), 20=264 (LC 20), 21=167 (LC 20), 22=194 (LC 20), 23=189 (LC 20), 24=193 (LC 20), 25=215 (LC 13), 26=197 (LC 19), 28=187 (LC 19), 29=195 (LC 19), 30=164 (LC 19), 31=274 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-231/188, 4-5=-178/133, 5-7=-163/131, 7-8=-148/159, 8-9=-134/201, 9-10=-169/250, 10-11=-169/250, 11-12=-134/191, 12-13=-94/121, 13-15=-100/63, 15-16=-117/51, 16-18=-184/99, 18-19=0/16

BOT CHORD 2-31=-85/187, 30-31=-85/187, 29-30=-85/187, 28-29=-85/187, 26-28=-85/187, 25-26=-85/187, 24-25=-85/187, 23-24=-85/187, 22-23=-85/187, 21-22=-85/187, 20-21=-85/187, 18-20=-85/187, 10-25=-201/84, 9-26=-157/96, 8-28=-148/106, 7-29=-153/105, 5-30=-132/84, 4-31=-210/168, 11-24=-153/93, 12-23=-149/107, 13-22=-152/104, 15-21=-135/87, 16-20=-201/160

WEBS

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 12-10-0, Corner(3R) 12-10-0 to 17-10-0, Exterior(2N) 17-10-0 to 26-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2, 4 lb uplift at joint 18, 72 lb uplift at joint 26, 82 lb uplift at joint 28, 81 lb uplift at joint 29, 59 lb uplift at joint 30, 146 lb uplift at joint 31, 69 lb uplift at joint 24, 83 lb uplift at joint 23, 81 lb uplift at joint 22, 62 lb uplift at joint 21 and 137 lb uplift at joint 20.

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 3, 2024

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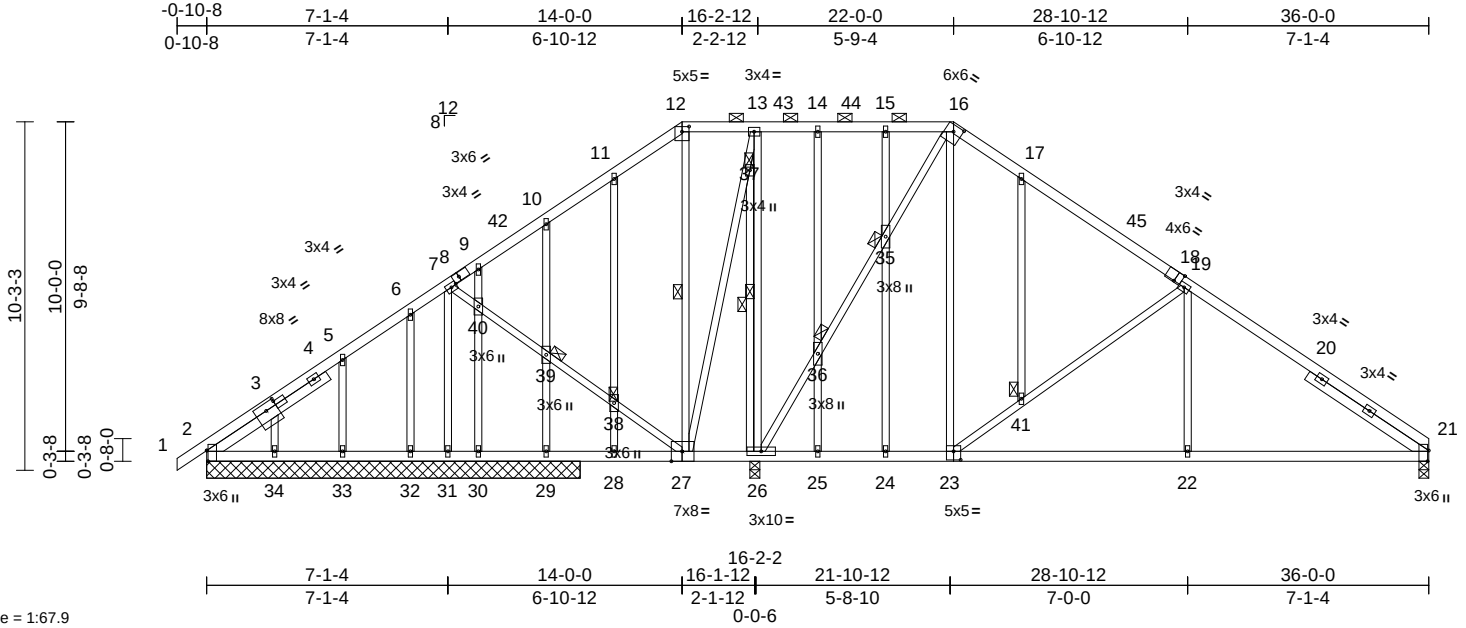
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140
P240444-01	C01	Piggyback Base Structural Gable	1	1	Job Reference (optional)
					I65297041

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:67.9
[2:0-3-13,Edge], [2:2-5-4,0-1-8], [3:0-4-0,0-2-8], [8:0-2-5,0-1-8], [12:0-2-8,0-1-13], [16:0-3-0,0-2-3], [18:0-2-5,Edge], [21:0-3-13,Edge], [23:0-2-8,0-3-0],
Plate Offsets (X, Y): [27:0-3-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.06	21-22	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.13	21-22	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.02	21	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 242 lb	FT = 20%

LUMBER		TOP CHORD		1-2=0/16, 2-3=-222/241, 3-5=-175/210, 5-6=-125/182, 6-7=-102/165, 7-9=-79/127, 9-10=-67/140, 10-11=-90/184, 11-12=-98/220, 12-13=-98/196, 13-14=-73/206, 14-15=-73/206, 15-16=-74/206, 16-17=-376/250, 17-19=-544/218, 19-21=-1104/246	BOT CHORD		2-34=-133/159, 33-34=-133/161, 32-33=-133/161, 31-32=-133/161, 30-31=-133/161, 29-30=-133/161, 28-29=-133/161, 26-28=-160/218, 25-26=0/343, 24-25=0/343, 22-24=-76/819, 21-22=-76/819	WEBS		7-31=-102/18, 7-40=-28/81, 39-40=-34/81, 38-39=-22/80, 27-38=-35/84, 12-27=-154/16, 26-36=-807/130, 35-36=-808/130, 16-35=-767/126, 16-23=-92/508, 23-41=-660/294, 19-41=-634/278, 19-22=0/312, 13-26=-323/77, 27-37=-12/197, 13-37=-6/120, 15-35=-73/53, 24-35=-39/67, 14-36=-71/50, 25-36=-73/49, 26-37=-90/9, 11-38=-88/77, 28-38=-65/65, 10-39=-214/130, 29-39=-239/139, 9-40=-94/57, 30-40=-80/53, 6-32=-127/72, 5-33=-165/118, 3-34=-154/116, 17-41=-45/28
BRACING		TOP CHORD		Structural wood sheathing directly applied or 4-11-7 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 12-16.	BOT CHORD		Rigid ceiling directly applied or 6-0-0 oc bracing.	WEBS		1 Row at midpt 12-27, 13-26, 26-37
JOINTS		TOP CHORD		1 Brace at Jt(s): 35, 36, 37, 38, 39, 41	BOT CHORD			WEBS		1 Brace at Jt(s): 35, 36, 37, 38, 39, 41
REACTIONS		TOP CHORD		(size) 2=11-0-0, 21=0-3-8, 26=0-3-8, 29=11-0-0, 30=11-0-0, 31=11-0-0, 32=11-0-0, 33=11-0-0, 34=11-0-0	BOT CHORD			WEBS		
FORCES		TOP CHORD		Max Horiz 2=275 (LC 9)	BOT CHORD			WEBS		
NOTES		TOP CHORD		Max Uplift 2=-85 (LC 8), 21=-176 (LC 13), 26=-62 (LC 8), 29=-148 (LC 12), 30=-12 (LC 12), 31=-16 (LC 9), 32=-49 (LC 12), 33=-94 (LC 12), 34=-92 (LC 12)	BOT CHORD			WEBS		
REMARKS		TOP CHORD		Max Grav 2=161 (LC 20), 21=851 (LC 1), 26=1273 (LC 1), 29=379 (LC 19), 30=50 (LC 19), 31=143 (LC 25), 32=157 (LC 19), 33=206 (LC 19), 34=197 (LC 19)	BOT CHORD			WEBS		
FORCES		TOP CHORD		(lb) - Maximum Compression/Maximum Tension	BOT CHORD			WEBS		



May 3, 2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	I65297041
P240444-01	C01	Piggyback Base Structural Gable	1	1	Job Reference (optional)	

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2, 16 lb uplift at joint 31, 62 lb uplift at joint 26, 176 lb uplift at joint 21, 148 lb uplift at joint 29, 12 lb uplift at joint 30, 49 lb uplift at joint 32, 94 lb uplift at joint 33 and 92 lb uplift at joint 34.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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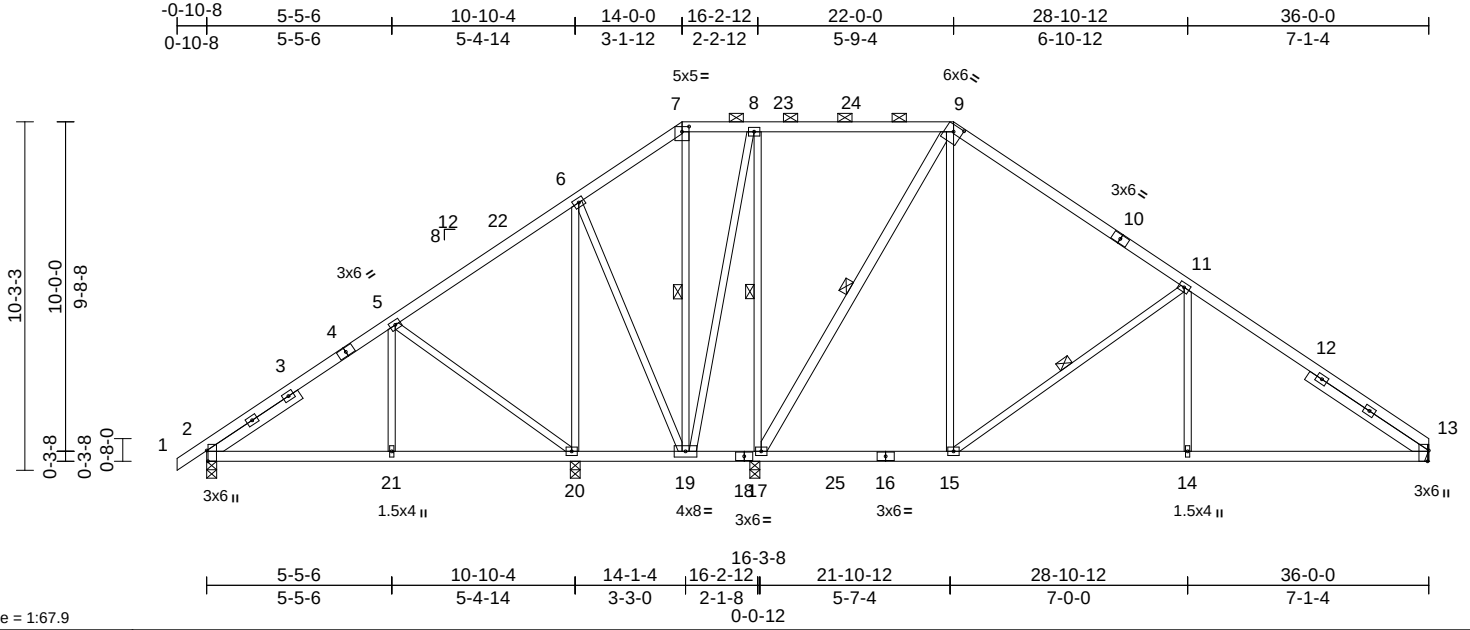
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	165297042
P240444-01	C02	Piggyback Base	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:67.9

Plate Offsets (X, Y): [2:0-3-13,Edge], [7:0-2-8,0-1-13], [9:0-3-0,0-2-3], [13:0-3-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	13-14	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.14	13-14	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.02	13	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 207 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 17-9:2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-11, Right 2x4 SP No.2 -- 4-2-10

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-1-9 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20,17-19.
WEBS	1 Row at midpt 7-19, 9-17, 11-15, 8-17

REACTIONS	(size) 2=0-3-8, 13= Mechanical, 17=0-3-8, 20=0-3-8
	Max Horiz 2=275 (LC 9)
	Max Uplift 2=-89 (LC 12), 13=-176 (LC 13), 17=-63 (LC 13), 20=-198 (LC 12)
	Max Grav 2=486 (LC 25), 13=909 (LC 20), 17=1371 (LC 2), 20=881 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/16, 2-5=-450/125, 5-6=-45/322, 6-7=-59/260, 7-8=-44/209, 8-9=-32/231, 9-11=-505/239, 11-13=-1120/246
BOT CHORD	2-21=-161/411, 20-21=-161/411, 19-20=-232/195, 17-19=-245/218, 15-17=-14/354, 14-15=-78/825, 13-14=-78/825
WEBS	7-19=-153/0, 9-17=-929/125, 9-15=-90/691, 11-15=-748/288, 11-14=0/309, 8-17=-451/148, 8-19=-9/149, 6-20=-389/128, 6-19=-23/92, 5-20=-573/214, 5-21=0/237

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 20 SP No.2 crushing capacity of 565 psi, Joint 17 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 2, 63 lb uplift at joint 17, 176 lb uplift at joint 13 and 198 lb uplift at joint 20.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 3, 2024

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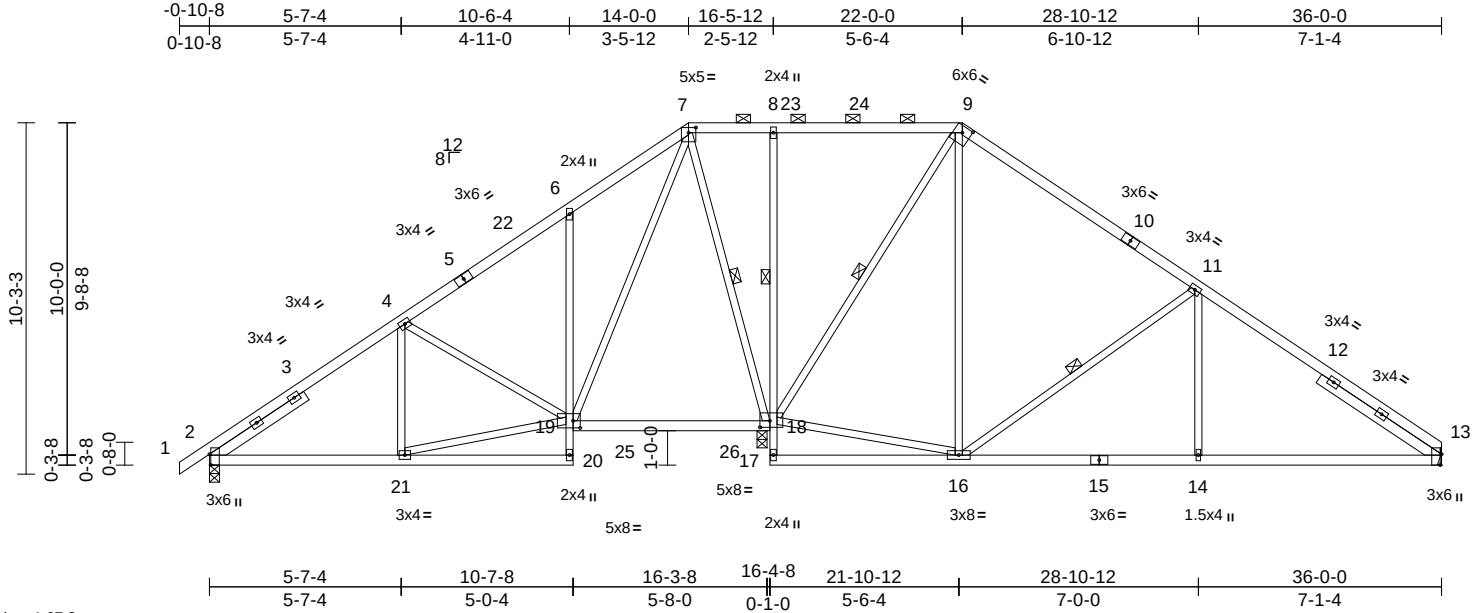
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	I65297043
P240444-01	C03	Piggyback Base	8	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:67.3

Plate Offsets (X, Y): [2:0-3-13,Edge], [7:0-2-8,0-1-13], [9:0-3-0,0-2-3], [13:0-3-13,Edge], [18:0-3-8,0-2-4], [19:0-2-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.08	18-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.14	13-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.02	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 199 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 20-6,8-17:2x3 SPF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-3-13, Right 2x4 SP No.2 -- 4-2-10

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-5 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt 8-18

WEBS 1 Row at midpt 7-18, 9-18, 11-16

REACTIONS (size) 2=0-3-8, 13= Mechanical, 18=0-3-8
Max Horiz 2=275 (LC 9)
Max Uplift 2=-140 (LC 12), 13=-194 (LC 13), 18=-157 (LC 12)
Max Grav 2=684 (LC 19), 13=851 (LC 20), 18=2023 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-748/160, 4-6=-389/184, 6-7=-370/314, 7-8=0/385, 8-9=0/386, 9-11=-441/272, 11-13=-1023/278
BOT CHORD 2-21=-202/703, 20-21=-42/5, 19-20=0/79, 6-19=-327/218, 18-19=-188/211, 17-18=0/88, 8-18=-369/174, 16-17=-64/0, 14-16=-104/746, 13-14=-104/746
WEBS 4-21=0/174, 19-21=-187/735, 4-19=-434/173, 7-18=-878/184, 16-18=0/284, 9-18=-935/132, 9-16=-112/632, 11-16=-754/287, 11-14=0/308, 7-19=-308/961

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 18 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 2, 157 lb uplift at joint 18 and 194 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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MiTek®

16023 Swingley Ridge Rd.
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314.434.1200 / MiTek-US.com

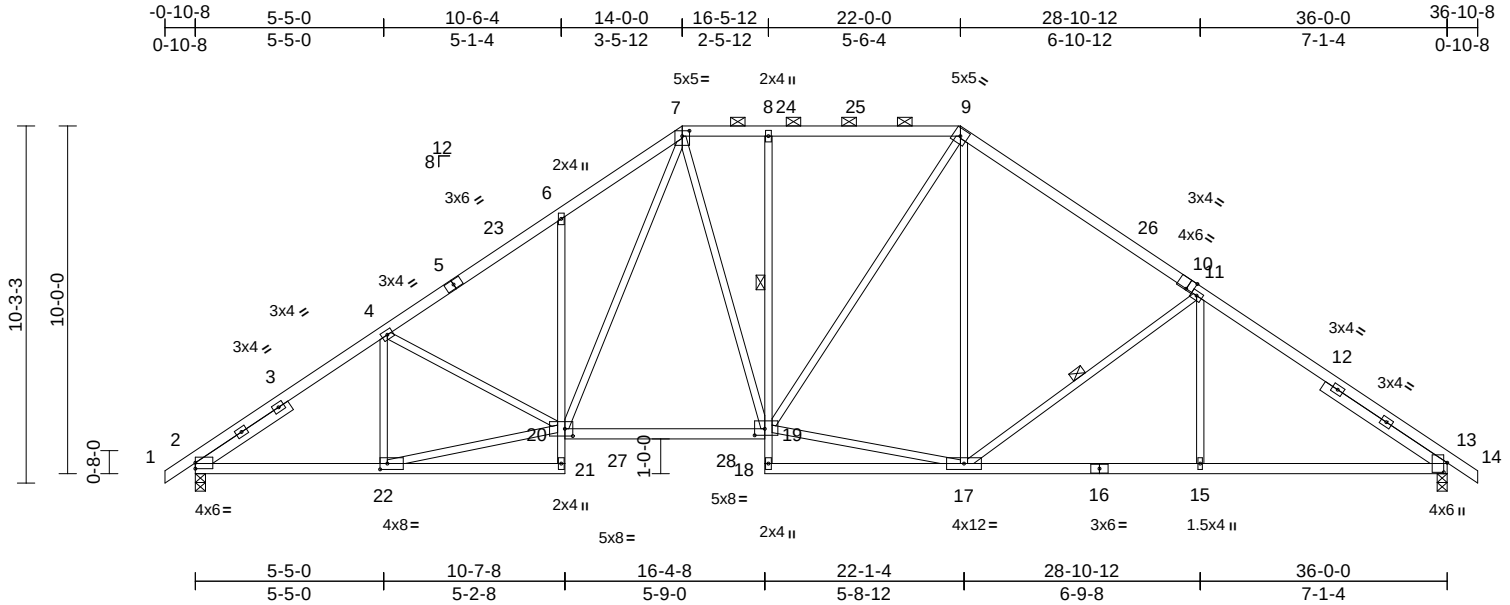
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	I65297044
P240444-01	C04	Piggyback Base	4	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 13:28:38

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Scale = 1:66.3

Plate Offsets (X, Y): [2:Edge,0-2-1], [7:0-2-8,0-1-13], [10:0-2-5,Edge], [13:0-3-5,0-1-3], [19:0-3-8,0-2-4], [20:0-2-12,0-2-8], [22:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	2x4 SP No.2 *Except* 5-7,9-10:2x4 SP	1.15	TC	0.66	Vert(LL)	-0.20	19-20	>999	240	244/190
TCDL	10.0	2x4 SP No.2 *Except* 21-6,8-18:2x3 SPF	1.15	BC	0.81	Vert(CT)	-0.35	19-20	>999	180	
BCLL	0.0*	No.2		WB	0.69	Horz(CT)	0.14	13	n/a	n/a	
BCDL	10.0	2x3 SPF No.2		Matrix-S							
		Left 2x4 SP No.2 -- 3-2-8, Right 2x4 SP No.2									
		-- 4-2-10									
		Code	IRC2018/TPI2014								
										Weight: 201 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 5-7,9-10:2x4 SP
	1650F 1.5E
BOT CHORD	2x4 SP No.2 *Except* 21-6,8-18:2x3 SPF
	No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-8, Right 2x4 SP No.2
	-- 4-2-10

BRACING

TOP CHORD	Structural wood sheathing directly applied or
	2-11-6 oc purlins, except
	2-0-0 oc purlins (3-11-11 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc
	bracing, Except:
	6-0-0 oc bracing: 17-18.

1 Row at midpt 8-19

WEBS 1 Row at midpt 11-17

REACTIONS	(size) 2=0-3-8, 13=0-3-8
	Max Horiz 2=277 (LC 11)
	Max Uplift 2=-225 (LC 12), 13=-225 (LC 13)
	Max Grav 2=1744 (LC 2), 13=1733 (LC 2)

FORCES

	(lb) - Maximum Compression/Maximum
	Tension
TOP CHORD	1-2=0/16, 2-4=-2557/353, 4-6=-2494/412,
	6-7=-2497/549, 7-8=-1765/403,
	8-9=-1763/404, 9-11=-1947/394,
	11-13=-2479/363, 13-14=0/16
BOT CHORD	2-22=-316/2131, 21-22=-21/59, 20-21=0/92,
	6-20=-369/230, 19-20=-123/1680,
	18-19=0/95, 8-19=-330/173, 17-18=-19/29,
	15-17=-187/1953, 13-15=-187/1953
WEBS	4-22=-264/127, 20-22=-301/2131,
	4-20=-100/143, 7-19=-180/476,
	17-19=-29/1540, 9-19=-187/537,
	9-17=-112/393, 11-17=-670/284,
	11-15=0/292, 7-20=-321/1093

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 3, 2024

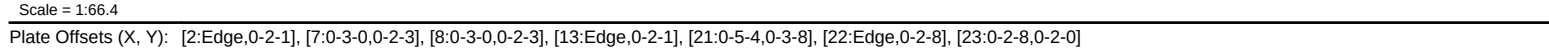
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 13:28:38 Page: 1
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LUMBER			1) Unbalanced roof live loads have been considered for this design.
TOP CHORD	2x4 SP No.2 *Except* 7-8:2x4 SP 2400F 2.0E		2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-10-4, Interior (1) 26-10-4 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
BOT CHORD	2x4 SP No.2 *Except* 22-6,9-16:2x3 SPF No.2		3) Provide adequate drainage to prevent water ponding.
WEBS	2x3 SPF No.2		4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
SLIDER	Left 2x4 SP No.2 -- 3-2-8, Right 2x4 SP No.2 -- 2-9-8		5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
BRACING			6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
TOP CHORD	Structural wood sheathing directly applied or 2-9-12 oc purlins, except 2-0-0 oc purlins (4-7-10 max.): 7-8.		7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 13.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 20-21.		8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
WEBS	1 Row at midpt 6-20, 7-18		9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
REACTIONS			LOAD CASE(S) Standard
	(size) 2=0-3-8, 13=0-3-8		
	Max Horiz 2=277 (LC 11)		
	Max Uplift 2=-225 (LC 12), 13=-225 (LC 13)		
	Max Grav 2=1751 (LC 2), 13=1745 (LC 2)		
FORCES			
	(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/16, 2-4=-2569/354, 4-6=-2554/420, 6-7=-2123/425, 7-8=-1725/391, 8-9=-2137/409, 9-11=-2606/415, 11-13=-2560/349, 13-14=0/16		
BOT CHORD	2-23=-316/2141, 22-23=-1/115, 21-22=0/93, 6-21=-110/638, 20-21=-201/2135, 18-20=-122/1742, 17-18=-161/2138, 16-17=0/84, 9-17=-51/484, 15-16=-9/105, 13-15=-200/1996		
WEBS	4-23=-317/140, 21-23=-323/2078, 4-21=-74/150, 6-20=-820/279, 7-20=-154/938, 7-18=-186/187, 8-18=-52/795, 9-18=-738/256, 11-17=-80/221, 11-15=-327/105, 15-17=-196/1936		

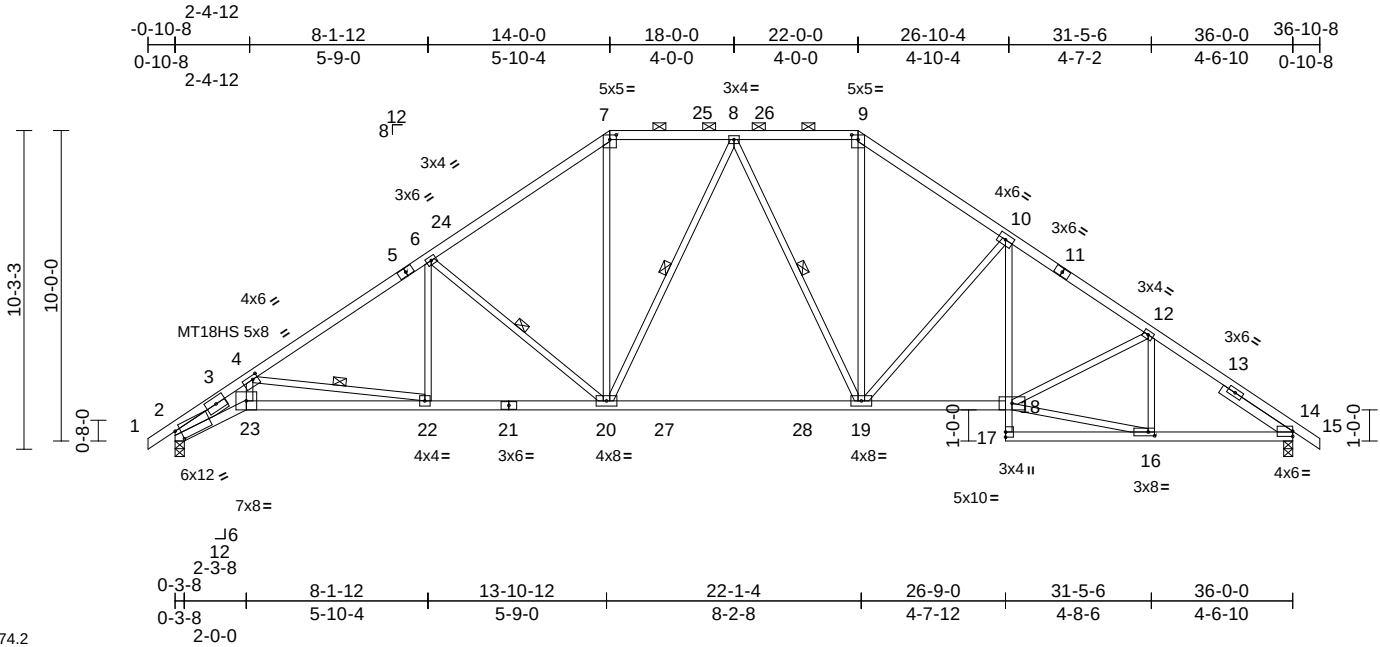
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	165297046
P240444-01	C06	Piggyback Base	6	1	Job Reference (optional)	

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Scale = 1:74.2

Plate Offsets (X, Y): [2:0-1-15,0-4-3], [4:0-2-0,0-1-8], [7:0-2-8,0-1-13], [9:0-2-8,0-1-13], [14:Edge,0-2-1], [16:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.31	19-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.53	19-20	>807	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.29	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 191 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 1-5,11-15:2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SP 1650F 1.5E *Except* 10-17:2x3 SPF No.2, 17-14,21-18:2x4 SP No.2
 WEBS 2x3 SPF No.2
 SLIDER Left 2x4 SP No.2 -- 1-11-11, Right 2x4 SP No.2 -- 2-8-4

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-5-3 oc purlins, except 2-0-0 oc purlins (4-4-5 max.): 7-9.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 4-22, 6-20, 8-20, 8-19

REACTIONS

(size) 2=0-3-8, 14=0-3-8
 Max Horiz 2=-278 (LC 10)
 Max Uplift 2=-226 (LC 12), 14=-224 (LC 13)
 Max Grav 2=1750 (LC 2), 14=1742 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/12, 2-4=-5248/803, 4-6=-2775/409, 6-7=-2169/402, 7-8=-1701/390, 8-9=-1709/386, 9-10=-2155/410, 10-12=-2602/413, 12-14=-2560/346, 14-15=0/16
 BOT CHORD 2-23=-820/4519, 22-23=-710/3847, 20-22=-300/2406, 19-20=-98/1756, 18-19=-162/2136, 17-18=0/88, 10-18=-49/460, 16-17=-6/120, 14-16=-200/1993
 WEBS 4-23=-290/2047, 4-22=-1460/416, 6-22=-4/449, 6-20=-882/303, 7-20=-93/884, 9-19=-110/905, 10-19=-733/263, 8-20=-322/211, 8-19=-306/211, 12-16=-307/105, 16-18=-198/1915, 12-18=-85/218

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-10-4, Interior (1) 26-10-4 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 14 SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 226 lb uplift at joint 2 and 224 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 3,2024

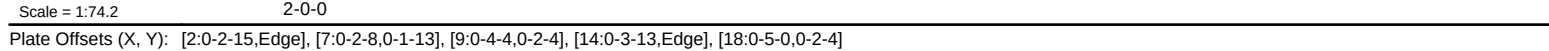
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 13:28:38 Page: 1
ID:EcfbY3UUQ1ryVwBwK1jrGzkXAE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



LUMBER		Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
TOP CHORD	2x4 SP No.2	exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8,
BOT CHORD	2x4 SP No.2 *Except* 10-17:2x3 SPF No.2	Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to
WEBS	2x3 SPF No.2	19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0
SLIDER	Left 2x4 SP No.2 -- 1-11-11, Right 2x4 SP No.2 -- 3-10-0	to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
BRACING		3) Provide adequate drainage to prevent water ponding.
TOP CHORD	Structural wood sheathing directly applied or 1-11-5 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.	4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except:	5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
1 Row at midpt	10-18	6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
WEBS	1 Row at midpt 6-19, 8-18	7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
REACTIONS	(size) 2=0-3-8, 14=0-3-8, 18=0-3-8	8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2, 79 lb uplift at joint 14 and 233 lb uplift at joint 18.
	Max Horiz 2=278 (LC 11)	9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
	Max Uplift 2=-144 (LC 12), 14=-79 (LC 13), 18=-233 (LC 12)	10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
	Max Grav 2=1085 (LC 19), 14=531 (LC 26), 18=2001 (LC 2)	
FORCES		
	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/12, 2-4=-3259/559, 4-6=-1403/193, 6-7=-873/179, 7-8=-632/206, 8-9=0/310, 9-10=0/263, 10-12=-94/450, 12-14=-481/78, 14-15=0/16	
BOT CHORD	2-22=-619/2899, 21-22=-539/2457, 19-21=-248/1293, 18-19=-153/438, 17-18=0/97, 10-18=-499/193, 16-17=-161/0, 14-16=0/315	
WEBS	4-22=-200/1362, 4-21=-1179/378, 6-21=-5/368, 6-19=-787/303, 7-19=0/198, 16-18=0/413, 12-18=-649/283, 12-16=0/257, 8-19=-149/814, 8-18=-1075/206	
LOAD CASE(S)		Standard

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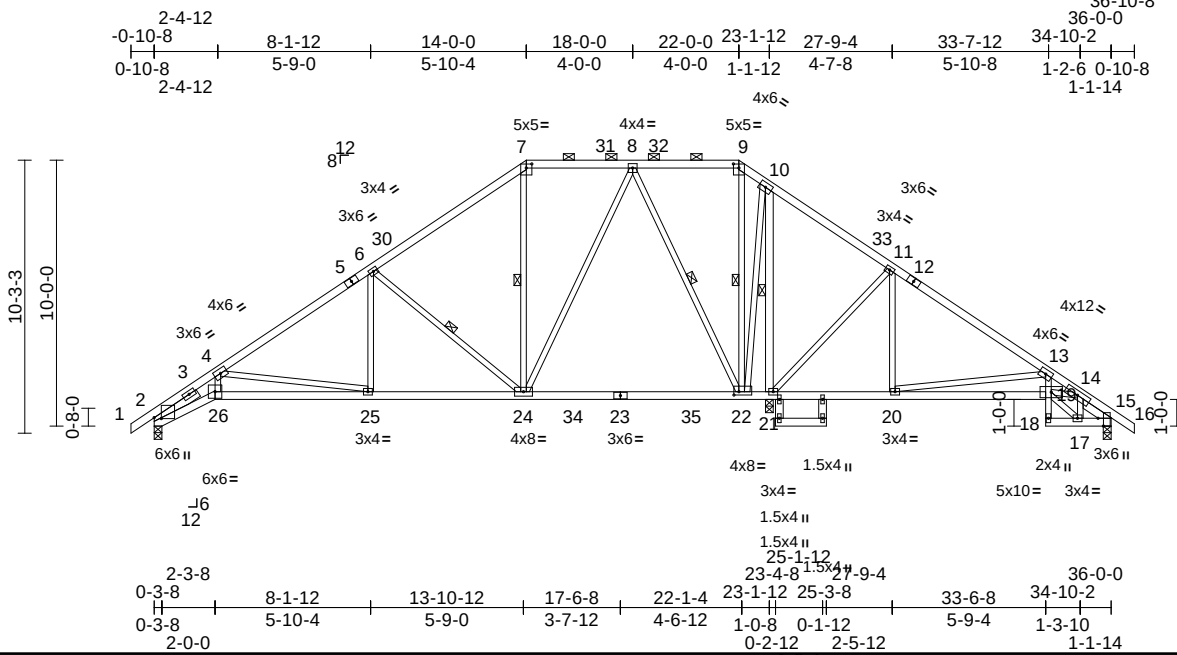
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	C08	Piggyback Base	5	1	Job Reference (optional)	165297048

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:86.7

Plate Offsets (X, Y): [2:0-0-7,0-3-4], [7:0-2-8,0-1-13], [9:0-2-8,0-1-13], [15:0-3-8,Edge], [22:0-2-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.20	22-24	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.34	22-24	>822	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.13	15	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 208 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 13-18:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
10-21,27-21,28-29:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-11-11, Right 2x4 SP No.2 -- 1-3-6

WEBS
4-26=-203/1227, 4-25=-1113/381,
6-25=0/383, 6-24=-795/295, 7-24=-56/121,
9-22=-295/34, 10-22=-72/1444,
10-21=-1821/177, 11-21=-616/223,
14-17=-146/39, 17-19=-14/261,
14-19=-114/452, 11-20=0/313,
13-20=-898/295, 8-24=-159/876,
8-22=-1052/206

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-24, 7-24, 9-22, 10-21, 8-22
REACTIONS (size) 2=0-3-8, 15=0-3-8, 21=0-3-8
Max Horiz 2=-278 (LC 10)
Max Uplift 2=-144 (LC 12), 15=-98 (LC 13), 21=-229 (LC 12)
Max Grav 2=985 (LC 27), 15=377 (LC 26), 21=2264 (LC 2)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-4=-2890/559, 4-6=-1244/189, 6-7=-700/183, 7-8=-489/209, 8-9=0/423, 9-10=0/468, 10-11=-60/786, 11-13=-130/417, 13-14=-744/191, 14-15=-359/80, 15-16=0/16
BOT CHORD 2-26=-619/2596, 25-26=-538/2198, 24-25=-260/1100, 22-24=-216/316, 21-22=-607/307, 20-21=-243/193, 19-20=-143/744, 18-19=0/25, 13-19=0/289, 17-18=-20/27, 15-17=-28/208

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2, 98 lb uplift at joint 15 and 229 lb uplift at joint 21.



May 3, 2024

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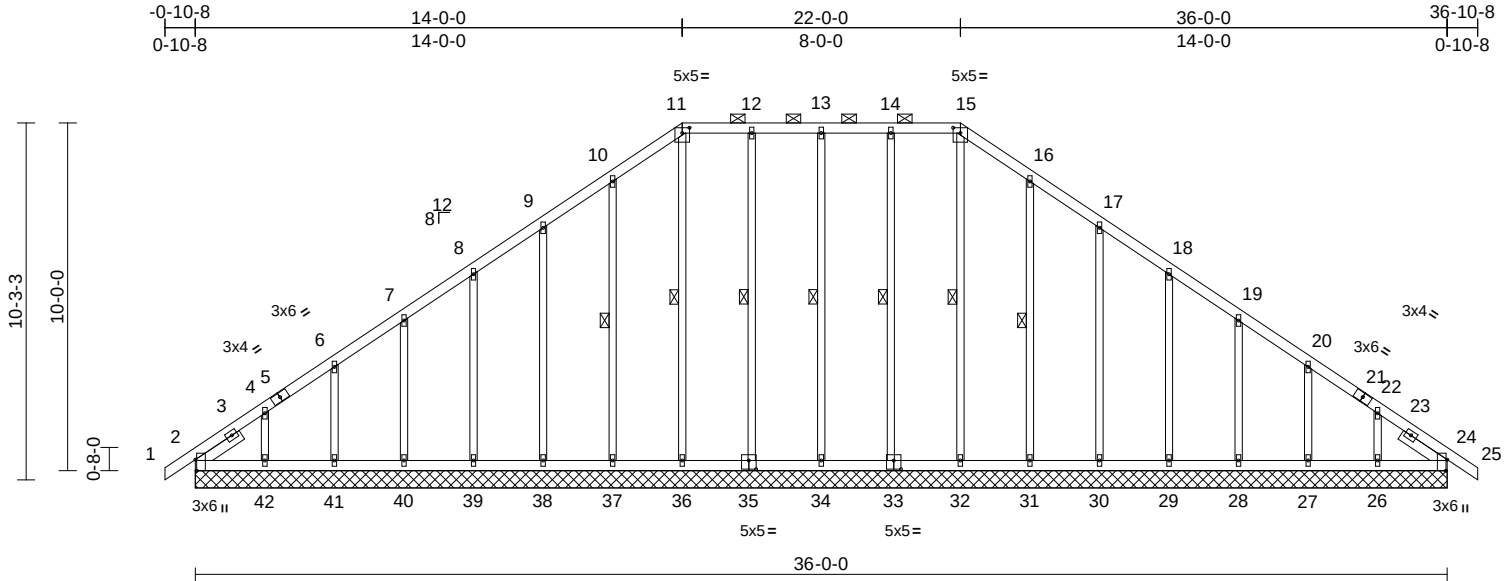
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	C09	Piggyback Base Supported Gable	1	1	Job Reference (optional)	I65297049

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:66.3

Plate Offsets (X, Y): [2:0-3-13,Edge], [11:0-2-8,0-1-13], [15:0-2-8,0-1-13], [24:0-3-13,Edge], [33:0-2-8,0-3-0], [35:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	24	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 209 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-4, Right 2x4 SP No.2 -- 1-6-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except 2'-0-0 oc purlins (6'-0-0 max.): 11-15.
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.
WEBS 1 Row at midpt 15-32, 14-33, 13-34, 12-35, 11-36, 10-37, 16-31

REACTIONS (size)
2=36-0-0, 24=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0, 37=36-0-0, 38=36-0-0, 39=36-0-0, 40=36-0-0, 41=36-0-0, 42=36-0-0
Max Horiz 2=-277 (LC 10)
Max Uplift 2=-100 (LC 8), 24=-20 (LC 9), 26=-118 (LC 13), 27=-73 (LC 13), 28=-79 (LC 13), 29=-77 (LC 13), 30=-82 (LC 13), 31=-76 (LC 13), 33=-43 (LC 9), 34=-41 (LC 8), 35=-42 (LC 9), 36=-15 (LC 9), 37=-78 (LC 12), 38=-81 (LC 12), 39=-77 (LC 12), 40=-80 (LC 12), 41=-71 (LC 12), 42=-132 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-286/237, 4-6=-198/190, 6-7=-172/168, 7-8=-155/162, 8-9=-141/190, 9-10=-138/232, 10-11=-177/273, 11-12=-153/250, 12-13=-154/251, 13-14=-154/251, 14-15=-153/250, 15-16=-177/273, 16-17=-138/209, 17-18=-99/141, 18-19=-69/75, 19-20=-84/54, 20-22=-113/77, 22-24=-202/113, 24-25=0/16
BOT CHORD 2-42=-95/196, 41-42=-95/196, 40-41=-95/196, 39-40=-95/196, 38-39=-95/196, 37-38=-95/196, 36-37=-95/196, 34-36=-95/196, 32-34=-95/196, 31-32=-95/196, 30-31=-95/196, 29-30=-95/196, 28-29=-95/196, 27-28=-95/196, 26-27=-95/196, 24-26=-95/196
WEBS 15-32=-128/7, 14-33=-148/67, 13-34=-139/67, 12-35=-148/65, 11-36=-147/45, 10-37=-158/103, 9-38=-148/104, 8-39=-149/101, 7-40=-149/103, 6-41=-147/96, 4-42=-173/151, 16-31=-156/100, 17-30=-149/106, 18-29=-149/101, 19-28=-149/103, 20-27=-149/98, 22-26=-158/138

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 22-0-0, Corner(3R) 22-0-0 to 27-0-0, Exterior(2N) 27-0-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

NOTES



May 3, 2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140
P240444-01	C09	Piggyback Base Supported Gable	1	1	I65297049
Job Reference (optional)					

- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 2, 20 lb uplift at joint 24, 43 lb uplift at joint 33, 41 lb uplift at joint 34, 42 lb uplift at joint 35, 15 lb uplift at joint 36, 78 lb uplift at joint 37, 81 lb uplift at joint 38, 77 lb uplift at joint 39, 80 lb uplift at joint 40, 71 lb uplift at joint 41, 132 lb uplift at joint 42, 76 lb uplift at joint 31, 82 lb uplift at joint 30, 77 lb uplift at joint 29, 79 lb uplift at joint 28, 73 lb uplift at joint 27 and 118 lb uplift at joint 26.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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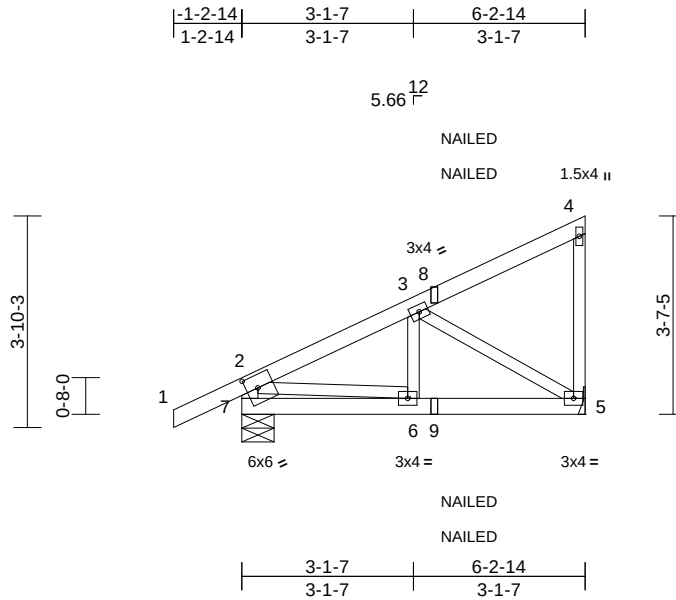
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	I65297050
P240444-01	CJ01	Diagonal Hip Girder	2	1	Job Reference (optional)	

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Scale = 1:41.9

Plate Offsets (X, Y): [7:0-2-8,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.00	6	>999	240	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	5-6	>999	180	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							
										Weight: 31 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 7-2:2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-11-10 oc bracing.

REACTIONS

(size)	5= Mechanical, 7=0-7-0
Max Horiz	7=159 (LC 9)
Max Uplift	5=-94 (LC 9), 7=-94 (LC 12)
Max Grav	5=258 (LC 1), 7=378 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-7=-352/278, 1-2=0/41, 2-3=-353/123, 3-4=-214/102, 4-5=-90/117
BOT CHORD	6-7=-353/181, 5-6=-257/300
WEBS	3-6=0/121, 3-5=-290/247, 2-6=-63/329

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 6-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: Joint 7 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 7 and 94 lb uplift at joint 5.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
 - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 5-7=-20



May 3, 2024

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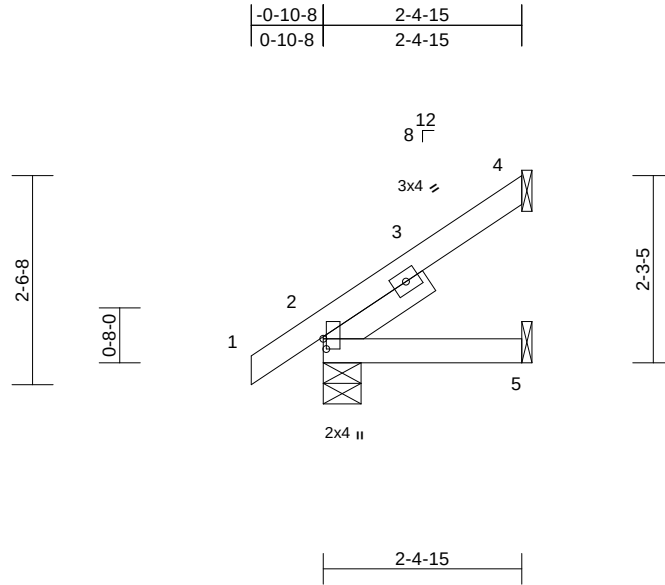
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	J01	Jack-Open	4	1	Job Reference (optional)	I65297051

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Scale = 1:28

Plate Offsets (X, Y): [2:0-1-8,0-0-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-9

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=92 (LC 12)
Max Uplift 2=-16 (LC 12), 4=-67 (LC 12)
Max Grav 2=178 (LC 1), 4=80 (LC 19), 5=47 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-4=-78/47
BOT CHORD 2-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) zone; cantilever left
and right exposed ; end vertical left and right
exposed;C-C for members and forces & MWFRS for
reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing
capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 67 lb uplift at joint
4 and 16 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 3, 2024

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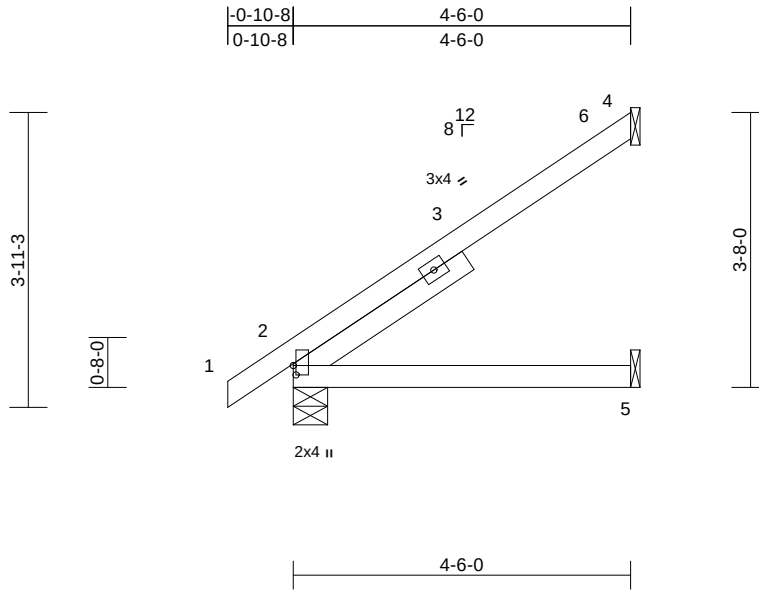
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	J02	Jack-Open	7	1	Job Reference (optional)	I65297052

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Scale = 1:30.7

Plate Offsets (X, Y): [2:0-1-8,0-0-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.02	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	2-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-8-10

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=153 (LC 12)
Max Uplift 2=-15 (LC 12), 4=-121 (LC 12)
Max Grav 2=267 (LC 1), 4=163 (LC 19), 5=89 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-4=-131/80
BOT CHORD 2-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8,
Interior (1) 4-1-8 to 4-5-4 zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 crushing
capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 121 lb uplift at
joint 4 and 15 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 3, 2024

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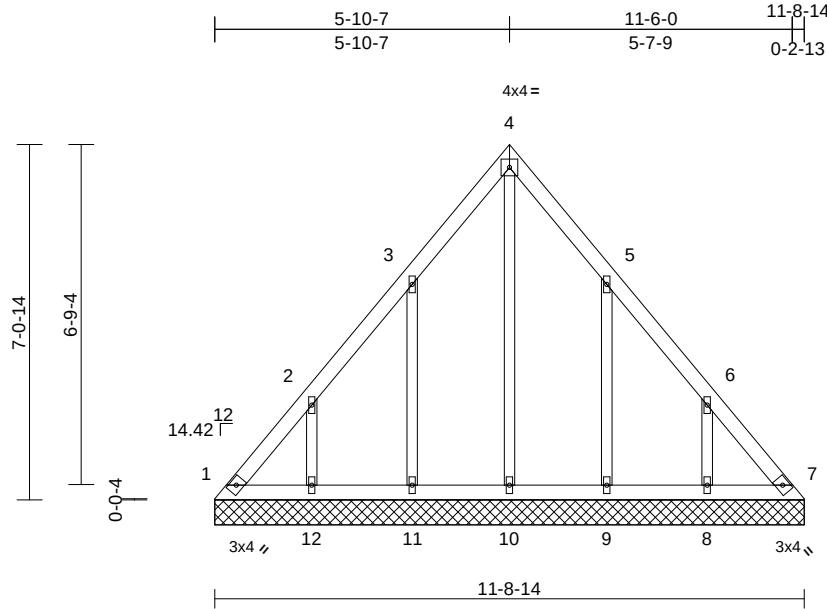
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	LG01	Lay-In Gable	1	1	Job Reference (optional)	I65297053

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	7	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 58 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=11-8-14, 7=11-8-14, 8=11-8-14, 9=11-8-14, 10=11-8-14, 11=11-8-14, 12=11-8-14
Max Horiz	1=197 (LC 9)
Max Uplift	1=-82 (LC 10), 7=-57 (LC 11), 8=-168 (LC 13), 9=-165 (LC 13), 11=-167 (LC 12), 12=-168 (LC 12)
Max Grav	1=190 (LC 12), 7=174 (LC 13), 8=220 (LC 20), 9=225 (LC 20), 10=142 (LC 22), 11=226 (LC 19), 12=219 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-264/171, 2-3=-150/105, 3-4=-135/124, 4-5=-135/119, 5-6=-125/71, 6-7=-243/171
BOT CHORD	1-12=-129/187, 11-12=-130/188, 10-11=-130/188, 9-10=-130/188, 8-9=-130/188, 7-8=-129/187
WEBS	2-12=-218/185, 3-11=-221/192, 4-10=-114/77, 5-9=-221/191, 6-8=-218/185

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-12 to 5-3-12, Interior (1) 5-3-12 to 5-10-10, Exterior(2R) 5-10-10 to 10-10-10, Interior (1) 10-10-10 to 11-5-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 1, 57 lb uplift at joint 7, 168 lb uplift at joint 12, 167 lb uplift at joint 11, 165 lb uplift at joint 9 and 168 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 3, 2024

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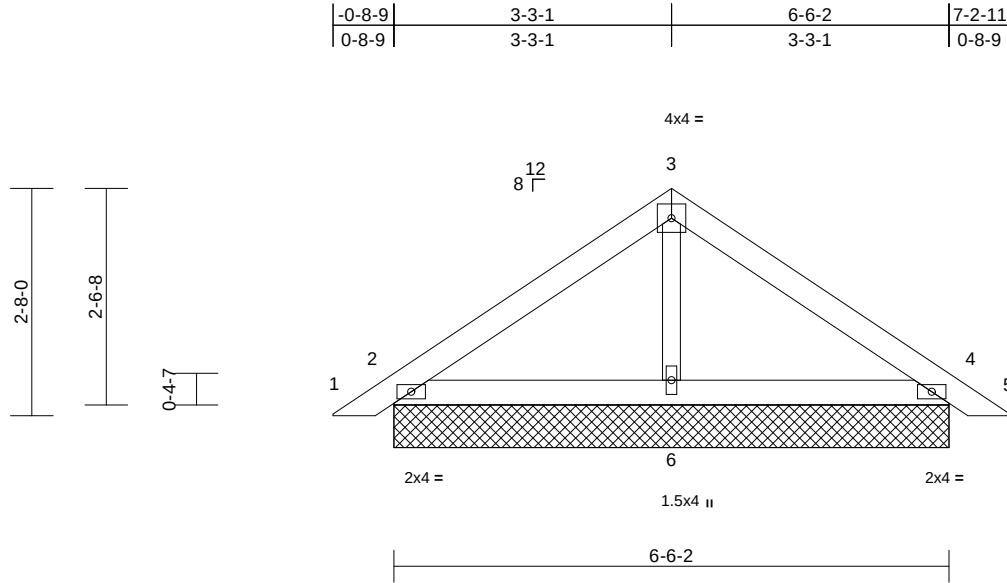
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	PB1	Piggyback	2	1	Job Reference (optional)	I65297054

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 25 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=6-6-2, 4=6-6-2, 6=6-6-2
Max Horiz 2=-69 (LC 10)
Max Uplift 2=-55 (LC 12), 4=-64 (LC 13)
Max Grav 2=200 (LC 1), 4=200 (LC 1), 6=251 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-106/75, 3-4=-100/76, 4-5=0/16

BOT CHORD 2-6=-13/53, 4-6=-13/53

WEBS 3-6=-170/93

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 64 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 3, 2024

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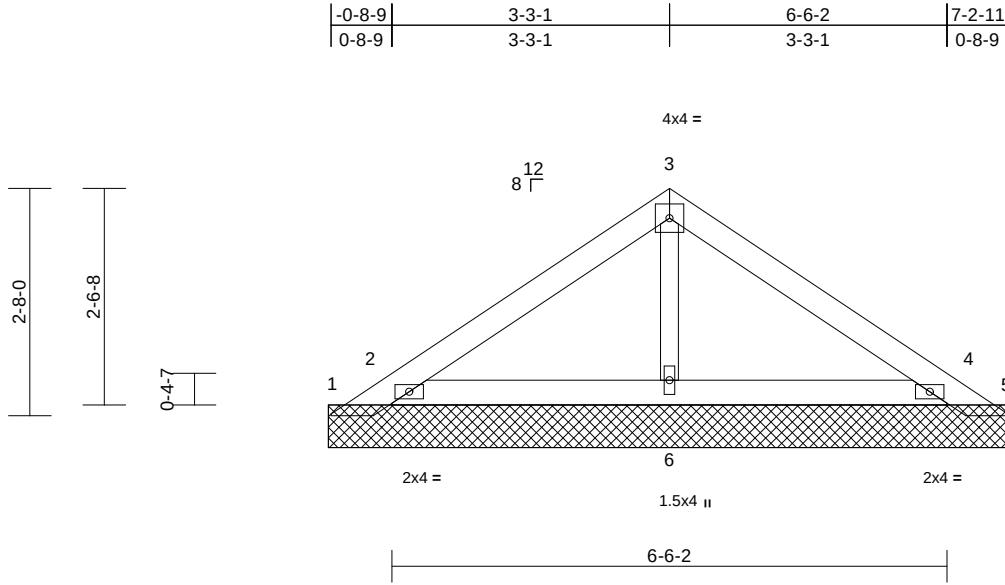
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	PB2	Piggyback	28	1	Job Reference (optional)	I65297055

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 25 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=8-0-0, 2=8-0-0, 4=8-0-0, 5=8-0-0, 6=8-0-0
Max Horiz	1=-69 (LC 8)
Max Uplift	1=-195 (LC 19), 2=-213 (LC 12), 4=-196 (LC 13), 5=-166 (LC 20)
Max Grav	1=149 (LC 12), 2=404 (LC 19), 4=385 (LC 20), 5=123 (LC 13), 6=223 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-113/159, 2-3=-111/70, 3-4=-110/70, 4-5=-92/99
BOT CHORD	2-6=-19/51, 4-6=-19/51
WEBS	3-6=-142/60

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 1, 166 lb uplift at joint 5, 213 lb uplift at joint 2 and 196 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 3, 2024

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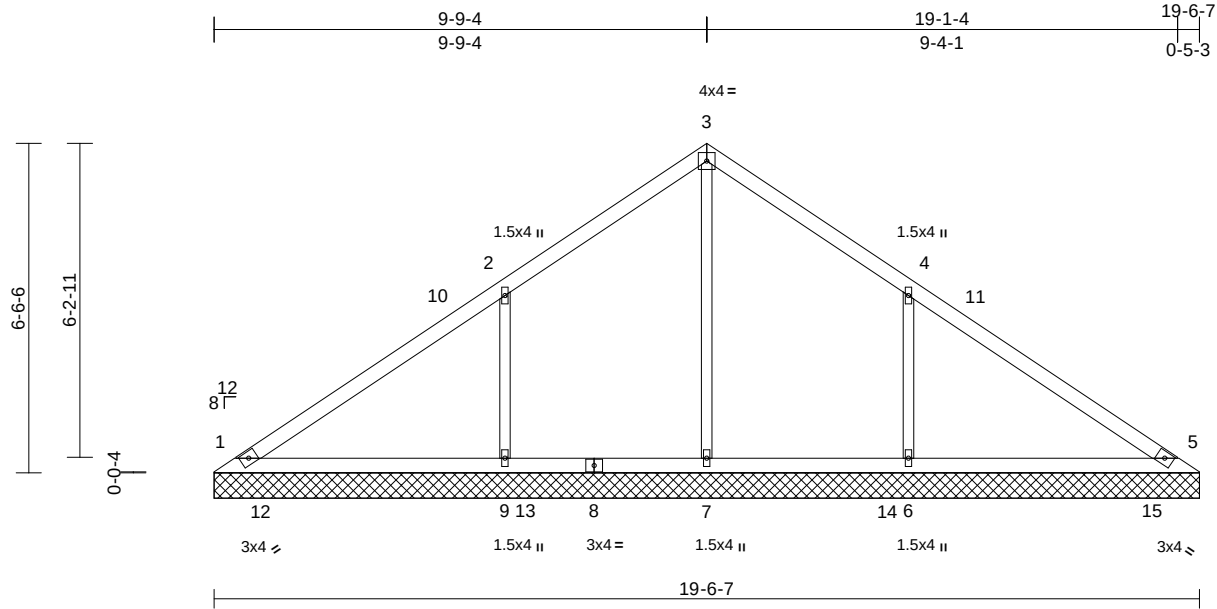
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	V01	Valley	1	1	Job Reference (optional)	I65297056

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Scale = 1:45.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 73 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	1=19-6-7, 5=19-6-7, 6=19-6-7, 7=19-6-7, 9=19-6-7
Max Horiz	1=-174 (LC 8)
Max Uplift	1=-21 (LC 13), 6=-229 (LC 13), 9=-229 (LC 12)
Max Grav	1=234 (LC 20), 5=216 (LC 1), 6=653 (LC 20), 7=331 (LC 22), 9=654 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-169/146, 2-3=-154/156, 3-4=-141/135, 4-5=-130/102
BOT CHORD	1-9=-56/124, 7-9=-56/124, 5-6=-56/124
WEBS	3-7=-160/0, 2-9=-422/281, 4-6=-422/281

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 9-9-10, Exterior(2R) 9-9-10 to 14-9-10, Interior (1) 14-9-10 to 19-1-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1, 229 lb uplift at joint 9 and 229 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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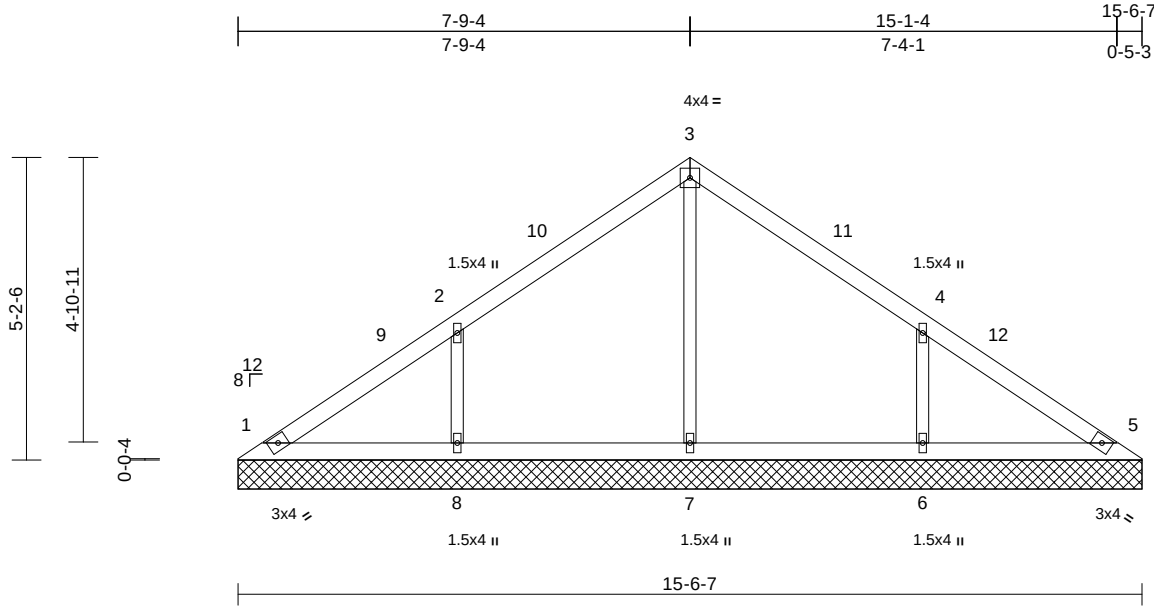
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	V02	Valley	1	1	Job Reference (optional)	I65297057

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=15-6-7, 5=15-6-7, 6=15-6-7, 7=15-6-7, 8=15-6-7
Max Horiz	1=-136 (LC 8)
Max Uplift	1=-17 (LC 13), 6=-175 (LC 13), 8=-175 (LC 12)
Max Grav	1=146 (LC 20), 5=139 (LC 1), 6=408 (LC 20), 7=270 (LC 1), 8=408 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-142/100, 2-3=-149/124, 3-4=-140/112, 4-5=-107/56
BOT CHORD	1-8=-38/88, 7-8=-38/88, 6-7=-38/88, 5-6=-38/88
WEBS	3-7=-193/5, 2-8=-321/218, 4-6=-321/218

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 7-9-10, Exterior(2R) 7-9-10 to 12-9-10, Interior (1) 12-9-10 to 15-1-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 175 lb uplift at joint 8 and 175 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 3, 2024

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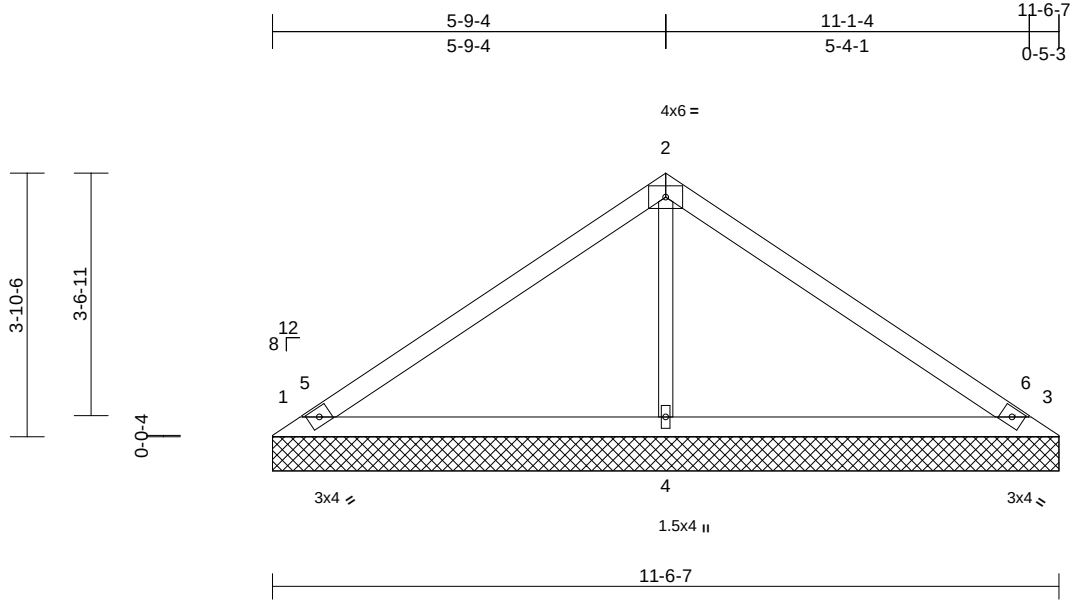
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	V03	Valley	1	1	Job Reference (optional)	I65297058

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Page: 1



Scale = 1:33.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=11-6-7, 3=11-6-7, 4=11-6-7
Max Horiz	1=-99 (LC 10)
Max Uplift	1=-54 (LC 12), 3=-66 (LC 13), 4=-29 (LC 12)
Max Grav	1=246 (LC 1), 3=246 (LC 1), 4=465 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-186/93, 2-3=-183/88
BOT CHORD	1-4=-20/87, 3-4=-20/87
WEBS	2-4=-303/124

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 5-9-10, Exterior(2R) 5-9-10 to 10-9-10, Interior (1) 10-9-10 to 11-1-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 1, 66 lb uplift at joint 3 and 29 lb uplift at joint 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



May 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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LUMBER

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1 and 50 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

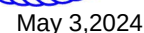
LOAD CASE(S) Standard

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-105/64, 2-3=-100/64
BOT CHORD	1-4=-13/50, 3-4=-13/50
WFRS	2-4=-178/96

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) zone; cantilever left
and right exposed ; end vertical left and right
exposed; C-C for members and forces & MWFRS for
reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/ITPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.



WARNING – verify design parameters and READ NOTES on THIS and INCLUDED MITER REFERENCE PAGE. MIT-7473 Rev. 12/2023 BEFORE USE.

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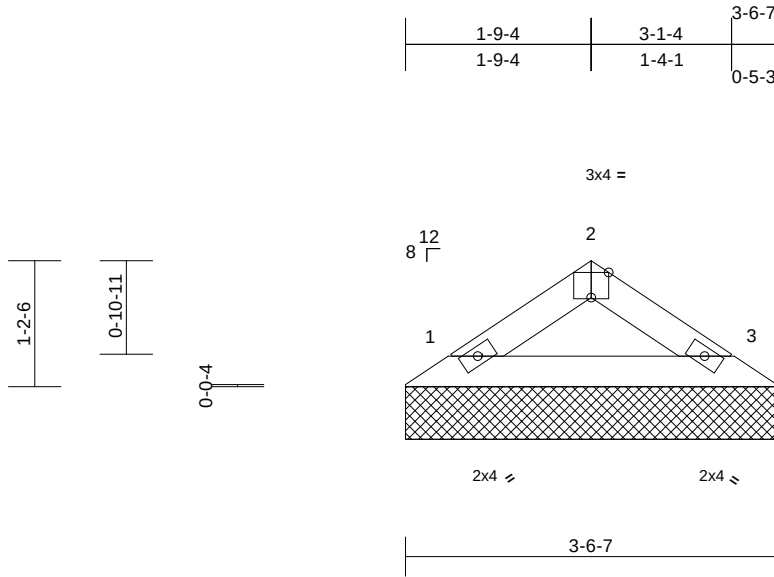
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 140	
P240444-01	V05	Valley	1	1	Job Reference (optional)	I65297060

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Scale = 1:21.9

Plate Offsets (X, Y): [2:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-6-7, 3=3-6-7
Max Horiz 1=25 (LC 11)
Max Uplift 1=-17 (LC 12), 3=-17 (LC 13)
Max Grav 1=119 (LC 1), 3=119 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/71, 2-3=-104/71
BOT CHORD 1-3=-26/69

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1 and 17 lb uplift at joint 3.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



May 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

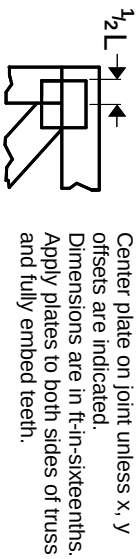
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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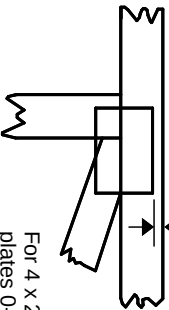
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Symbols

PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

—
This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

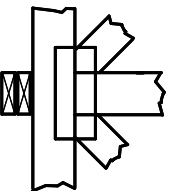
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

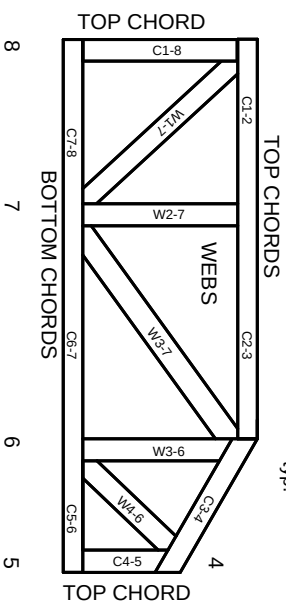
Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

1 2 3 Joint ID typ.



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.